

# Source Water Assessment Program (SWAP) Report For DECK HOUSE, INC.



Prepared by the  
Massachusetts Department of  
Environmental Protection,  
Bureau of Resource Protection,  
Drinking Water Program

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**Table 1: Public Water System (PWS) Information**

<i>PWS NAME</i>	DECK HOUSE, INC.
<i>PWS Address</i>	930 MAIN STREET
<i>City/Town</i>	ACTON
<i>PWS ID Number</i>	2002011
<i>Local Contact</i>	DOROTHY SMITH
<i>Phone Number</i>	(978) 263-7000

<i>Well Name</i>	<i>Source ID#</i>	<i>Zone I (in feet)</i>	<i>IWPA (in feet)</i>	<i>Source Susceptibility</i>
Well # 1	2002011-01G	100	414	Moderate

## What is SWAP?

The Source Water Assessment Program (SWAP), established under the federal Safe Drinking Water Act, requires every state to:

- ? inventory land uses within the recharge areas of all public water supply sources;
- ? assess the susceptibility of drinking water sources to contamination from these land uses; and
- ? publicize the results to provide support for improved protection.

## Maintaining Your Good Water Quality

Susceptibility of a drinking water source does *not* imply poor water quality. Actual water quality is best reflected by the results of regular water tests.

Water suppliers protect drinking water by monitoring for more than 100 chemicals, treating water supplies, and using source protection measures to ensure that safe water is delivered to the tap.

## INTRODUCTION

We are all concerned about the quality of the water we drink. Drinking water wells may be threatened by many potential contaminant sources, including septic systems, road salting, and improper disposal of hazardous materials. Citizens and local officials can work together to better protect these drinking water sources.

### Purpose of this report:

This report is a planning tool to support local and state efforts to improve water supply protection. By identifying land uses within water supply protection areas that may be potential contaminant sources, the assessment helps focus protection efforts on appropriate best management practices (BMPs) and drinking water source protection measures. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

### This report includes:

1. Description of the Water System
2. Discussion of Land Uses within Protection Areas
3. Recommendations for Protection
4. Attached Map of the Protection Areas
5. Appendices

## 1. DESCRIPTION OF THE WATER SYSTEM

### The Well

The well for Deck House, Inc. is located adjacent to the manufacturing building, and has a Zone I of 100 feet and an Interim Wellhead Protection Area (IWPA) of 414 feet. The well is 125 feet deep. Although the facility is a wood working facility, the only wood working activity is the cutting of wood. Please refer to the attached map of the Zone I and IWPA. The water does not receive any treatment at the time of this report. For current information on monitoring results and treatment, please contact the Public Water Supplier for complete water quality and treatment information (contact information listed above in Table 1).

### What is a Protection Area?

A well's water supply protection area is the land around the well where protection activities should be focused. Each well has a Zone I protective radius and an Interim Wellhead Protection Area (IWPA).

- **The Zone I** is the area that should be owned or controlled by the water supplier and limited to water supply activities.

- **The IWPA** is the larger area that is likely to contribute water to the well.

In many instances the IWPA does not include the entire land area that could contribute water to the well. Therefore, the well may be susceptible to contamination from activities outside of the IWPA that are not identified in this report.

### What is Susceptibility?

Susceptibility is a measure of a well's potential to become contaminated due to land uses and activities within the Zone I and Interim Wellhead Protection Area (IWPA).

## 2. DISCUSSION OF LAND USES IN THE PROTECTION AREAS

There are a number of land uses and activities within the drinking water supply protection areas that are potential sources of contamination.

Key issues include:

1. **Inappropriate activities in Zone I;**
2. **Presence of 21E site within the protection area;**
3. **Aboveground storage tank (AST);**
4. **Septic system; and**
5. **Storm water drain.**

The overall ranking of susceptibility to contamination for the well is Moderate, based on the presence of at least one high threat land use activity in the IWPA, as seen in Table 2.

1. **Zone I** - Currently, the well does not meet DEP's restrictions, which only allow for water supply related activities in Zone Is. The facility's Zone I contains a portion of the on-site building and parking areas. The building is used as offices and wood working operations. The wood working operations only involve cutting and sawing. Please note that systems not meeting DEP Zone I requirements must get DEP approval and address Zone I issues prior to increasing water use or modifying systems.
2. **Presence of a contaminated site in the protection areas** - The property on which the water supply is located is a DEP Tier Classified Oil and/or Hazardous Material Release Site indicated on the map as Release Tracking Number 2-10612. The site's responsible party is cleaning up, and monitoring groundwater quality. See the attached map and Appendix 1 for more information.
3. **Aboveground Storage Tank** - Two 200 gallon Aboveground Storage Tanks (AST) containing heating oil are within the IWPA. The tanks are single walled steel tanks, located in a bermed area. The age of the tanks is not known. All tanks in close proximity to water supply wells should be upgraded to meet current construction standards Please see your Local Fire Dept. or the Department of Fire Services for more information about these tanks.
4. **Septic system** - The septic system for the site is located within the IWPA and is pumped yearly.

**Table 2: Table of Activities within the Water Supply Protection Areas**

Facility Type	Potential Contaminant Sources	Zone I	IWPA	Threat	Comments
Commercial	Parking lot, driveways & roads	Yes	Yes	Moderate	Limit road salt usage and provide drainage away from wells
	21E site	Yes	Yes	----	Oil and/or hazardous material contaminated site
	Septic system	No	Yes	Moderate	See Brochure on septic systems attached
	Aboveground storage tank	Yes	Yes	Moderate	#2 fuel oil storage
	Stormwater drain	Yes	Yes	Low	Two drains

\* -For more information on Contaminants of Concern associated with individual facility types and land uses please see the SWAP Draft Land Use / Associated Contaminants Matrix on DEP's website - [www.state.ma.us/dep/brp/dws/](http://www.state.ma.us/dep/brp/dws/).

## Glossary

**Zone I:** The area closest to a well; a 100 to 400 foot radius proportional to the well's pumping rate. To determine your Zone I radius, refer to the attached map.

**IWPA:** A 400 foot to ½ mile radius around a public water supply well proportional to its pumping rate; the area DEP recommends for protection in the absence of a defined Zone I I. To determine IWPA radius, refer to the attached map.

**Zone II:** The primary recharge area defined by a hydrogeologic study.

**Aquifer:** An underground water-bearing layer of permeable material that will yield water in a usable quantity to a well.

**Hydrogeologic Barrier:** An underground layer of impermeable material that resists penetration by water.

**Recharge Area:** The surface area that contributes water to a well.

5. **Stormwater drains** – Two stormwater drains are located within the Zone I protection area. As flowing stormwater travels, it picks up debris and contaminants from streets, parking areas, and lawns.

Implementing the following recommendations will reduce the system's susceptibility to contamination.

## 3. PROTECTION RECOMMENDATIONS

Deck House, Inc. should review and adopt the following recommendations at the facility:

### Zone I:

- ✓ Keep non-water supply activities out of the Zone I.
- ✓ Remove all non-water supply activities from the Zone I to comply with DEP's Zone I requirements. Please note that water systems not meeting DEP Zone I requirements must get DEP approval and address Zone I issues prior to increasing water use or modifying their system.
- ✓ Consider well relocation if Zone I threats cannot be mitigated. Please note that DEP permit approvals must be obtained prior to the installation of a new well.
- ✓ Conduct regular inspections of the Zone I and IWPA. Look for illegal dumping, spills/leaks from ASTs and evidence of vandalism.
- ✓ Redirect road and parking lot drainage away from well. Work with your community to ensure that stormwater runoff within the IWPA is directed away from the well and is treated according to DEP guidance.

### Training and Education:

- ✓ Train staff on proper hazardous material use, transportation, disposal, emergency response, and best management practices; include custodial staff, groundskeepers and certified operator.
- ✓ Post drinking water protection area signs at key visibility locations.

### Facilities Management:

- ✓ Implement standard operating procedures regarding proper storage, use and disposal of hazardous materials. To learn more, see the hazardous materials guidance manual at <http://www.dep.state.ma.us/dep/bwp/dhm/dhmpubs.htm>.
- ✓ Implement Best Management Practices (BMPs) for the use of fertilizer, herbicides and pesticides on facility property.
- ✓ Septic system components should be located, inspected, and maintained on a regular basis. Refer to the appendices for more information regarding septic systems.

### Planning:

- ✓ Work with local officials in Acton to include Deck House, Inc.'s IWPA in Aquifer Protection District Bylaws and to assist you in improving protection.

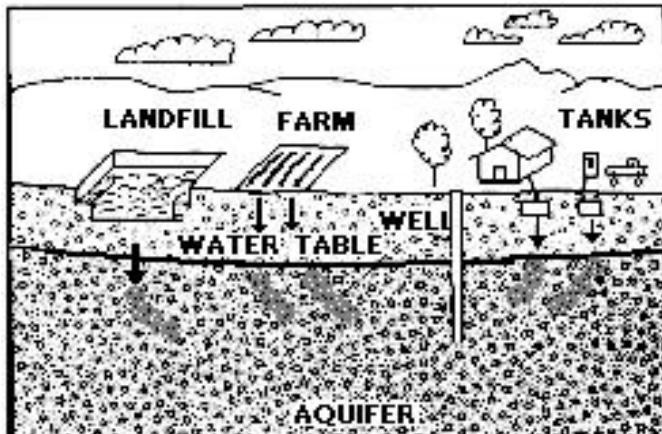


Figure 1: Example of how a well could become contaminated by different land uses and activities.

### For More Information:

Contact **Josephine Yemoh-Ndi** in DEP's **Worcester Office** at **(508) 792-7650 x 5030** for more information and for assistance in improving current protection measures.

More information relating to drinking water and source protection is available on DEP's web site at:  
[www.state.ma.us/dep/brp/dws](http://www.state.ma.us/dep/brp/dws).

Copies of this assessment have been provided to the water department, town boards, the town library and the local media.

- ✓ Have a plan to address short-term water shortages and long-term water demands. Keep the phone number of a bottled water company readily available.
- ✓ Supplement the SWAP assessment with additional local information and incorporate it into water supply educational efforts. Use a potential contaminant threat inventory to assist in setting priorities, focusing inspections, and creating educational activities.

These recommendations are only part of your ongoing local drinking water source protection. Citizens and community officials should use this SWAP report to spur discussion of local drinking water protection measures.

### 4. Attachments:

- Map of the Public Water Supply (PWS) Protection Area.
- Recommended Source Protection Measures Factsheet
- Your Septic System Brochure
- Pesticide Use Factsheet

## 5. APPENDICES

- Table of Tier Classified Oil and/or Hazardous Material Sites within the Water Supply Protection Areas.

DEP's datalayer depicting oil and/or hazardous material (OHM) sites is a statewide point data set that contains the approximate location of known sources of contamination that have been both reported and classified under Chapter 21E of the Massachusetts General Laws. Location types presented in the layer include the approximate center of the site, the center of the building on the property where the release occurred, the source of contamination, or the location of an on-site monitoring well. Although this assessment identifies OHM sites near the source of your drinking water, the risks to the source posed by each site may be different. The kind of contaminant and the local geology may have an effect on whether the site poses an actual or potential threat to the source.

The DEP's Chapter 21E program relies on licensed site professionals (LSPs) to oversee cleanups at most sites, while the DEP's Bureau of Waste Site Cleanup (BWSC) program retains oversight at the most serious sites. This privatized program obliges potentially responsible parties and LSPs to comply with DEP regulations (the Massachusetts Contingency Plan – MCP), which require that sites within drinking water source protection areas be cleaned up to drinking water standards.

For more information about the state's OHM site cleanup process to which these sites are subject and how this complements the drinking water protection program, please visit the BWSC web page at <http://www.state.ma.us/dep/bwsc>. You may obtain site -specific information two ways: by using the BWSC

Searchable Sites database at <http://www.state.ma.us/dep/bwsc/sitellst.htm>, or you may visit the DEP regional office and review the site file. These files contain more detailed information, including cleanup status, site history, contamination levels, maps, correspondence and investigation reports, however you must call the regional office in order to schedule an appointment to view the file.

The table below contains the list of Tier Classified oil and/or Hazardous Material Release Sites that are located within your drinking water source protection area.

**Table 1:** Bureau of Waste Site Cleanup Tier Classified Oil and/or Hazardous Material Release Sites (Chapter 21E Sites) - Listed by Release Tracking Number (RTN)

<b>RTN</b>	<b>Release Site Address</b>	<b>Town</b>	<b>Contaminant Type</b>
2-0010612	930 Main Street	Acton	Hazardous material
2-0010645	930 Main Street	Acton	Hazardous material
2-00942	930 Main Street	Acton	Hazardous material

For more location information, please see the attached map. The map lists the release sites by RTN.